

## METHOD AND APPARATUS FOR SPEAKER IDENTIFICATION

### ABSTRACT OF THE INVENTION

Disclosed is a method of automated speaker identification, comprising receiving a sample speech input signal from a sample handset; deriving a cepstral covariance sample matrix from said first sample speech signal;  
5 calculating, with a distance metric, all distances between said sample matrix and one or more cepstral covariance signature matrices; determining if the smallest of said distances is below a predetermined threshold value; and wherein said distance metric is selected from  $d_5(S, \Sigma) = A + \frac{1}{H} - 2$ ,

10  $d_6(S, \Sigma) = (A + \frac{1}{H})(G + \frac{1}{G}) - 4$ ,  $d_7(S, \Sigma) = \frac{A}{2H}(G + \frac{1}{G}) - 1$ ,  $d_8(S, \Sigma) = \frac{(A + \frac{1}{H})}{(G + \frac{1}{G})} - 1$ ,

$d_9(S, \Sigma) = \frac{A}{G} + \frac{G}{H} - 2$ , fusion derivatives thereof, and fusion derivatives thereof

with  $d_1(S, \Sigma) = \frac{A}{H} - 1$ .